







## ARMY INSTITUTE OF PATHOLOGY

### ARMY MEDICAL MUSEUM

This brochure has been prepared in response to requests for information about the Army Institute of Pathology: what it is, what it does, and what facilities it provides for study and research.

The Army Institute of Pathology is the central laboratory of pathology for the entire United States Army. It comprises four departments: the Laboratories of Pathology, the American Registry of Pathology, the Army Medical Illustration Service, and the Army Medical Museum. These four departments are administratively coordinated by the Director, who is a colonel in the Medical Corps of the Regular Army. The professional staff consists of more than thirty officers who have been selected on the basis of specialized knowledge. Technical and clerical aid is rendered by a detachment of 30 enlisted men and WACS and 62 Civil Service employees.

The Institute is a division of the Surgeon General's office. It is housed, together with the Army Medical Library, at Seventh Street and Independence Avenue, S.W., Washington, D. C. The present building, which was erected in 1887, is no longer adequate for the needs of either organization and plans for new and separate buildings are now being prepared.

### FUNCTIONS

The Army Institute of Pathology has three principal functions:

a. It furnishes a consultation service for the diagnosis of pathologic tissue for the entire Army;

b. It conducts investigation and research on diseases of medico-military importance;

c. It supplies instruction in pathologic anatomy to Medical Department officers.

a) DIAGNOSIS OF PATHOLOGIC TISSUE. Army regulations require that the pertinent tissues from all the more important operations,



and particularly all tumors or suspected tumors, be sent to this laboratory for diagnosis, for consultation, or for review and final opinion. Also sent for review are the records and material from every postmortem examination performed on military personnel. This material includes representative portions of various organs, or sometimes entire organs of especial significance or interest. All of this material, surgical and postmortem, is examined by competent pathologists, and reports are returned to the submitting stations. Thus soldiers, as well as the Government, are protected against errors in diagnosis; surgeons are aided in their operative work; internists in the investigation of the condition of the patient, and all medical officers in the diagnosis, treatment, and prevention of diseases and injuries. To an increasing degree medical officers in military installations throughout the world are making use of the facilities provided by this laboratory by sending in pathologic material, especially from biopsies on tumors, by air mail; reports returned by radiogram insure the prompt institution of proper methods of treatment.

The advantages of this central laboratory of pathology to medical officers are obvious, but there are other important reasons for bringing this material together under one roof. By analyzing the collected data, it is possible to furnish information to the Surgeon General regarding current trends of disease in the many localities occupied by troops. Furthermore, this central organization is daily consulted as to the pathologic findings in previous operations; this is of particular value to the Army, in which it is often necessary to move patients from one hospital to another.

b) INVESTIGATION AND RESEARCH. By regulation, the Army Institute of Pathology is required to conduct investigation and research on diseases of medico-military importance. The assembling of all significant pathologic material in one central laboratory is unique in the history of military medicine, and furnishes the U. S. Medical Department with an unequalled opportunity to gain needed information on disease processes prevalent in men of military age. In contrast to the abundance of knowledge of diseases at other times of life -- infancy, childhood, middle life and old age -- information about those prevalent at the military age (18 to 38 years) is scanty. A



Carefully planned and executed study of pathology characteristic of this age period will yield lasting and significant benefits to the Army and to the Nation. All research in the Institute has been centered around diseases of the soldier. Several comprehensive studies have been completed and others are in progress, which are of immediate use to the Medical Department, and will also be part of the Volume on Pathology which the Surgeon General has directed the Institute to prepare for the Medical History of the War. Studies already completed deal with the comparative pathology of scrub typhus and other rickettsial diseases, with trench foot, fat embolism, epidemic hepatitis, gynecomastia, brain lesions following extractions of teeth; coronary disease, heat stroke, teratomas of the mediastinum, and odontogenic tumors. Other studies are in progress, both by members of the staff and by distinguished civilian pathologists who have made valuable contributions to the Institute by serving as Resident Consultants. It is anticipated that such investigations will give a clearer insight into the "pathology of the soldier".

c) TRAINING OF MEDICAL DEPARTMENT OFFICERS IN PATHOLOGIC ANATOMY. It is imperative to keep medical officers throughout the Army informed about the pathology of diseases prevalent in this war. When possible, officers in charge of laboratories are brought to the Army Institute of Pathology for temporary duty, but the far flung distribution of the Army has made it essential to adopt other methods of instruction. The members of the staff of the Institute have prepared study sets, consisting of slides together with illustrated and descriptive syllabuses and atlases covering special fields in pathology. Sets of 100 slides cover comprehensively the pathology of such important specialties as ophthalmology, otolaryngology, orthopedics, neurology, dermatology, gynecology, urology, and dental and oral surgery. They are used not only by Army and civilian pathologists, but also by medical officers and clinicians preparing for the board examinations. Smaller sets, of 25 slides each, demonstrate lesions of the lymph nodes, the thyroid gland, epidemic hepatitis, interstitial pneumonitis, fungus diseases, the encephalitides, and certain tumors, such as those of breast, skin, bones, and brain. This instructive material is available on a loan basis. Within the last year over 1000 borrowers in Army medical installations alone have used these sets.



Other teaching devices furnished consist of lantern slides and material for clinico-pathologic conferences. In addition, the Army Institute of Pathology has supplied all the medical schools of the United States and Canada with tissues from cases of tropical disease, in an effort to increase the effectiveness of the teaching of a subject which has become so important in this war and may be expected to be equally important in the postwar period. The medical schools have also been sent sets of colored lantern slides showing the clinical and pathologic features of all the more important tropical diseases. Through the facilities of its departments the Institute is also able to give assistance of many kinds to medical officers who are conducting special studies.

#### DEPARTMENTS OF THE ARMY INSTITUTE OF PATHOLOGY

The Laboratories of Pathology are the heart of the Institute. To these laboratories come all the pathologic material from military sources; from them emanate the reports on tissue sent for consultation, and here are made most of the definitive studies on diseases encountered in the Army. At present the number of "cases" received for diagnosis, consultation, or review, is between 3,500 to 4000 a month, approximately equally divided between postmortem and surgical. There is a great amount of work involved in preparing such quantities of material for histopathologic study, and beside this, all records and reports must be filed and the cases properly indexed. These processes require a staff of competent pathologists, histopathologic technicians (of which the Institute has 17), clerks trained in accessioning, record clerks, and index clerks. The return of the Army to peacetime status will decrease the work of the Institute but little, since it is contemplated that it will serve as a central pathologic laboratory for the Veterans' Administration as well as for the Army.

The American Registry of Pathology, operating under the auspices of the National Research Council, is housed at the Army Institute of Pathology by authority of the Surgeon General. The purpose of the American Registry of Pathology is comprehensive investigation in specific fields, which at present comprise: ophthalmic, otolaryngologic, orthopedic, dental and oral, neurologic, dermal, geriatric



and veterinary pathology, and in the pathology of neoplasms, with special consideration to those of the endocrine glands, lymph nodes, the kidney, the urinary bladder, the prostate gland and the lungs. Through close cooperation with various national societies, records and material are brought together at the Army Institute of Pathology for systematic study. The number of specimens received is considerable; for example, there are on hand for investigation approximately 18,000 enucleated eyes, including 2000 with malignant melanoma, and 5,000 tumors of the urinary bladder. All material and records of the Registry are available to medical officers, graduate students, specialists, and other qualified students and investigators.

Certain sections of the Registry have proved to be of great value to military medicine. For example, the experience gained from the Registry of Ophthalmic Pathology has contributed to the understanding of missile injuries of the eyes. The facilities of the Registry of Otolarynologic Pathology have been found admirably suited to the study of wartime diseases affecting the internal ear, such as aerotitis in flyers. Since tumors have been found much more prevalent in men of military age than had been suspected, all of the Tumor Registries have furnished important basic and supplementary data in the study of the pathology of the soldier.

Through the American Registry of Pathology cordial relations have been established between many leading members of the civilian medical profession and the Medical Department, and the Army has been provided with unexcelled consultation service in the special fields of pathology.

The Army Medical Illustration Service, as organized at the Army Institute of Pathology, consists of two independent sections. One of these, the Photographic Laboratory, was started shortly after the Civil War by Woodward, a pioneer in photomicrography. It has become widely known for the high quality of its work and through the years has amassed a collection of approximately 100,000 negatives of medical interest. During August 1945, an average month, the Laboratory prepared more than 2,800 prints, 1,000 colored lantern slides, 2,600 photostats and 27,000 offset prints.



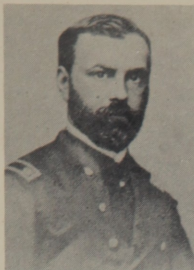
The other section, organized at the beginning of this war, is known as the Medical Museum and Arts Service. Its purpose is to secure illustrative records, photographs and drawings of wounds, injuries, and diseases peculiar to the countries in which our troops are stationed; also to train men, already expert in the lines of medical photography and art, to adapt their skills to the conditions of work in the field. Every Theater of Operations has one or more detachments of medical photographers and artists which send a vast amount of pictorial material to their headquarters at the Institute. These illustrations are invaluable for instruction and will serve as a record of the medical activities of this war. The Medical Museum and Arts Service also supervises and clinical photographic departments of over 60 general hospitals in this country, and receives from them an average of 5,000 photographs a month, as well as moving picture film. This wealth of material is carefully classified and arranged for use by the Army Medical Department.

The Army Medical Museum is the parent organization of the Army Institute of Pathology and its several departments. It was established during the Civil War to house collected specimens of gunshot wounds and other war injuries that were to be used for the instruction of Army surgeons. In the course of time the Army Medical Museum has grown to be the largest museum of its kind in the world. It has famous collections of microscopes, from the earliest to the most modern models, of ophthalmoscopes, stethoscopes, and other diagnostic instruments, and comprehensive collections of medical coins, medals, and stamps. Its material also includes the famous Huntington collection of comparative anatomy. The number of items cannot be stated, for even before this war lack of space made it necessary to store a large part of the collections. The exhibits on view illustrate wounds of war, from those caused by Indian tomahawks to those of the latest explosives, and also present specimens of all diseases that afflict man and the animals of use to man. Although Europe has had several notable medical museums open to laymen, the Army Medical Museum is the only one in the United States which admits the general public. That such a Museum fills a need is plain from the number of interested visitors ---- in a year as many as 200,000.

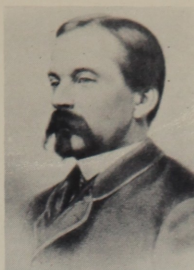
November, 1945



# CURATORS OF THE ARMY MEDICAL MUSEUM



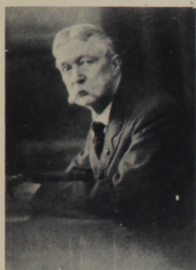
J. H. BRINTON  
1862 - 1864



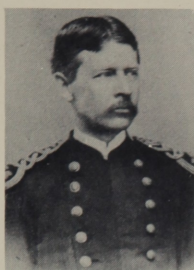
GEO. OTIS  
1864 - 1881



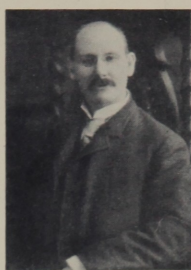
D. L. HUNTINGTON  
1881 - 1883



J. S. BILLINGS  
1883 - 1893



WALTER REED  
1893 - 1902



JAMES CARROLL  
1903 - 1907



F. F. RUSSELL  
1907 - 1913



E. R. WHITMORE  
1913 - 1916



C. C. McCULLOCH  
1915 - 1916



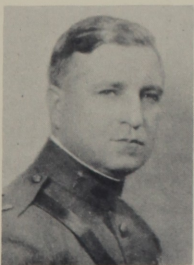
W. O. OWEN  
1916 - 1919



C. F. CRAIG  
1919 - 1920



G. R. CALLENDER  
1920 - 1922  
1924 - 1929



JAMES COUPAL  
1923 - 1924



J. E. ASH  
1929-1931  
1937-



P. McNABB  
1931 - 1933



V. H. CORNELL  
1933 - 1935



R. O. DART  
1935-1936





A corner of the Accession Room. Here the material is recorded and distributed for review to the officers by specialty.



Corner of one of the Histopathologic Preparation Laboratories.





Corner of the Preparation Room. Here appropriate material is mounted as Museum specimens, "wet tissue" is cut for the histology laboratory, and the remainder is prepared for permanent storage.



One of the Photographic Laboratories.





Corridor on third floor of Army Institute of Pathology. Here the slides and paraffin blocks are filed.

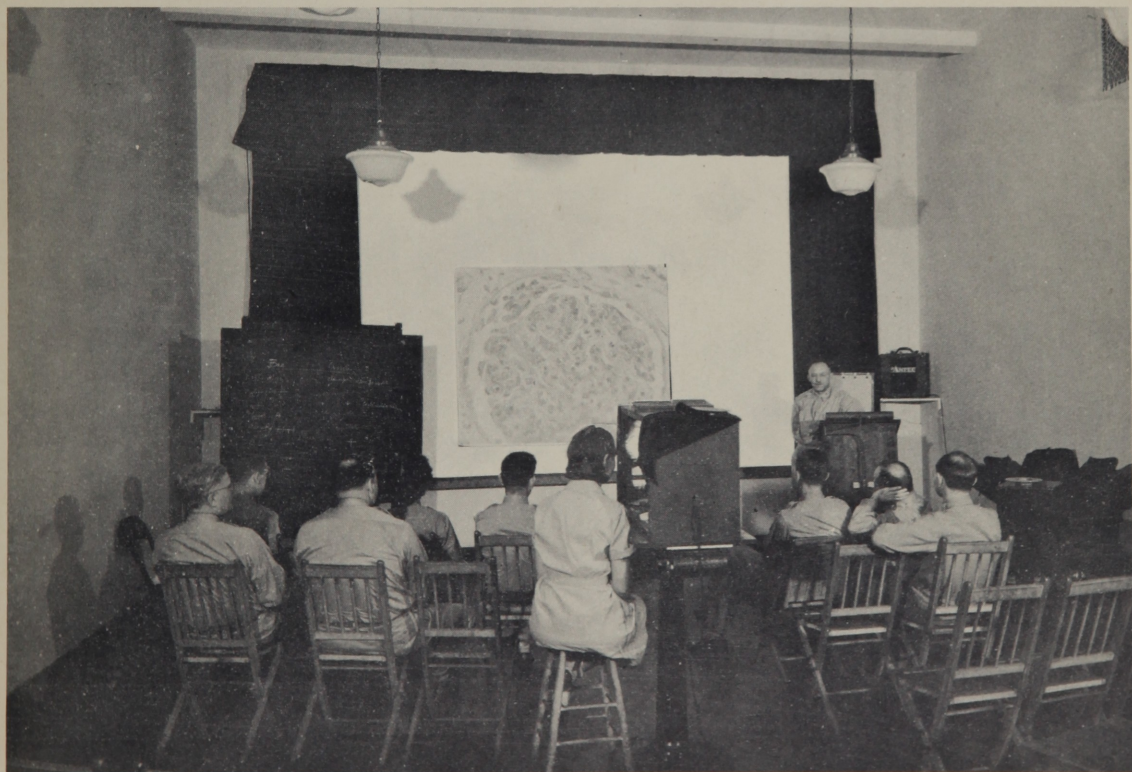


The main floor of the Museum, as seen from the gallery.





Typical Army Institute of Pathology exhibit at a medical convention.

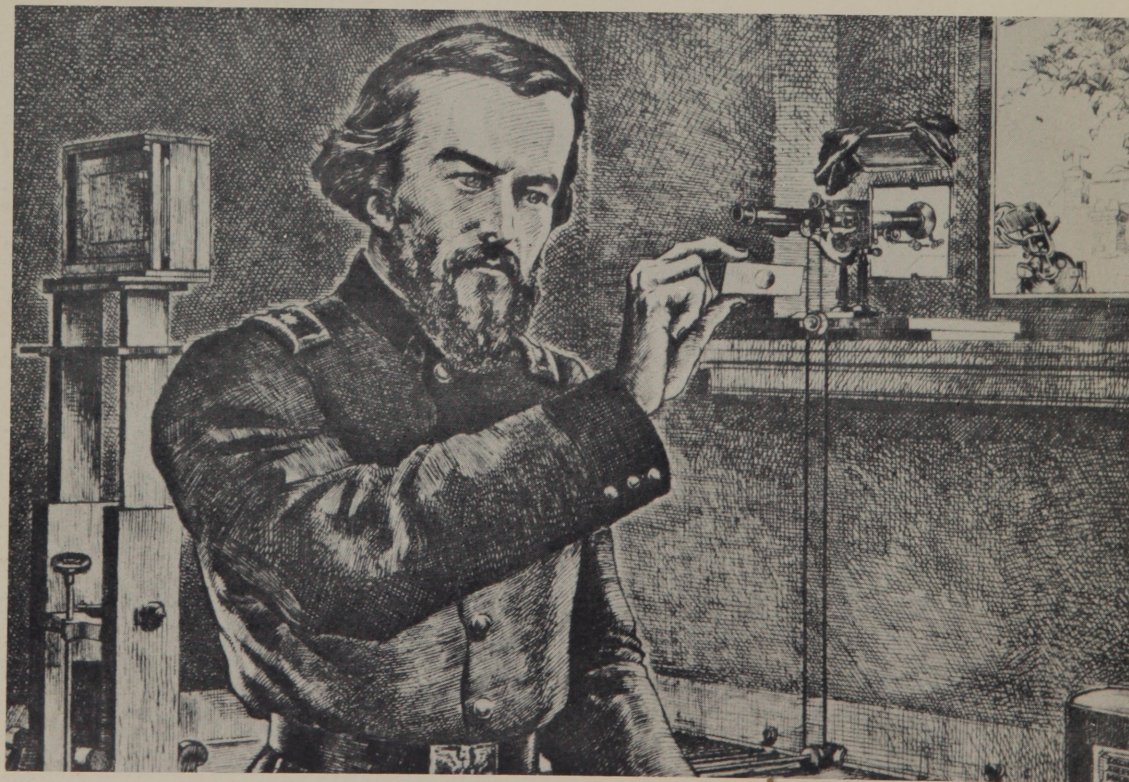


Conference Room. "Refresher" class in session.





Officers and Enlisted Personnel. Army Institute of Pathology.



*Joseph Janvier Woodward 1833-1884*







